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United Nations Industrial Development Organization

ESCAP Regional Energy Development Programme (REDP)
Regional Network for Small Hydropower (RN-SHP)

Technical Advisory Group (TAG)
First Meeting

Hangzhou, China, 11-13 December 1984

Proposal for 1984/85/86*

(Agenda item 5(a))

prepared by

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Purpose and coverage period

This report covers activities to be carried out under two major sources of project funding:

1) REDP Phase II (Jan 1984 for 3 years) RAS/84/001/C/01/53
   REDP $100,000
2) UNDP (1985-1986) RAS/80/033/H/01/37
   UNDP $200,000

Besides the above, the Chinese government sponsors RN-SHP activities by funding of HRC as required.

Background

Following the establishment of HRC and the start of RN-SHP activities, some of which were funded under REDP Phase I in the previous period 1982-1984, follow-up support under REDP Phase II has been agreed with the signing of the project document (RAS/84/001/C/01/53) on 18 July 1984. Taking note of the expert group meetings in Hangzhou and Kuala Lumpur, Phase II will support certain specific activities that would enable HRC to attract additional funds from other agencies in order to carry out the work plan. Our RN-SHP activities are particularly relevant to Phase II since this phase will place special emphasis on energy use in the rural sector. The allocation of $100,000 spread over 3 years is to be implemented by UNIDO as the lead agency through a sub-contracting arrangement.

In addition to REDP Phase II funds, UNDP has given an additional allocation under RAS/80/033/H/01/37 to assist in the implementation of

top priority programmes/projects of the work programme for 1985-1986. The project revision was signed on 13 Aug 1984.

As in previous years, the Chinese government will continue to provide funding for HRC, and the annual level for the next few years is anticipated to be about Y200,000RMB,(1 Yuan RMB is about $0.4). Additionally, the Ministry of Water Resources and Electric Power has allocated Y4,000,000RMB for the construction of a new 14-storey office block/training centre plus auxiliary buildings, to be completed in the second half of 1986.

Forecast of 1984-1986 Activities

The activities under REDP Phase II and UNDP funding are considered separately below. However, common to all activities is the need for positive support from a sound network of SHP Focal Points, and for co-operative efforts to finalise the work programme so that it will have maximum impact in the ESCAP region. Thus, in reading through the proposed list of activities we hope SHP Focal Point representatives will note their needs and capabilities in each particular area, and raise these for discussion at the TAG meeting.

Activities under REDP Phase II 1984-86

Table 1a is taken from the REDP Phase II document (p.51), listing 4 specific activities to be supported. Although as much preparatory work was done as possible, there has been an inevitable delay in starting the 1984 activities since the project document was not signed till July 1984, and the 1984 allocation of $35,000 was only received by UNIDO in October 1984 after finalization of sub-contracting arrangements. This has necessitated a slight rescheduling of activities, and this is shown in Table 1b.

The first activity in Table 1, the 1984 TAG meeting, will be held between 11-13 December 1984 (instead of July as previously scheduled), and if funds are insufficient, it is suggested that no TAG meeting is held in 1985.

The second item, information work, is on-going as described in Report A, Review of 1982-1984 activities, though this is an area requiring positive support not only from RN-SHP Focal Points but also from related agencies and organizations active in the information field to avoid unnecessary duplication of effort, see also following section on UNDP inputs. As regards the revolving training courses, the 1984 allocation is being used for preparatory work, and this is incorporated in the Terms of Reference of the Secretariat Consultations Mission Oct/Nov 1984. On the basis of these consultations, and discussion at the TAG meeting, we hope to implement the revolving training courses as planned in 1985 and 1986.

The final item listed, co-operative research and development projects, is already under consideration and suggestions for relevant topics are welcome. The REDP Phase II 1984 allocation of $12,500 has already been earmarked for the "local assembly and application of electronic load controllers" project, which will involve 2 to 3 Asia-Pacific countries. Furthermore, ITDG,UK, has agreed to co-sponsor this project, and preparations are under way for a co-operative research group meeting to be held as soon as possible to determine the project direction for 1985. On the Chinese side, the Chinese government has allocated Y20,000RMB, and HRC has already signed a contract with a local manufacturer for the assembly of the 60kW electronic load controller kits, to be tested at 2 or 3 SHP stations in the Region.

Activities under UNDP additional allocation 1985-1986

1984 activities funded by UNDP have already been considered in Report A. The work programme for 1985-1986 was drawn up at a tripartite meeting (Mr. Yongtu Long, UNDP New York; Mr. Zhu Xiaozhang, Interim Co-ordinator RN-SHP, Hangzhou; Messrs Y. de San and A. Sissingh, UNDP Beijing; Mr. H.W. Pack, UNIDO Vienna) held on 20-21 June 1984 at UNDP Beijing, and is given in Table 2. The proposed time schedule for implementing the activities is shown in Table 3. Activity J, Panxi telemetry project, is listed in Table 3 as an on-going project, though no UNDP allocation for 1985-1986 has been provided. Chinese government funds will be used to meet local project expenses.

Insufficient funding

From Table 2, it can be seen that several items still require funding. Furthermore, additional funds will be required to develop R+D projects should initial results prove promising, and also to supplement REDP funds for TAG meetings if these are to be held annually with a substantial attendance. Seeking funds from alternative sources is the subject of a separate report.

Table 1a

DETAILED WORK PLAN FOR PROJECT ACTIVITIES
REGIONAL ENERGY DEVELOPMENT PROGRAMME
(RAS/84/001)
1984 - 1986

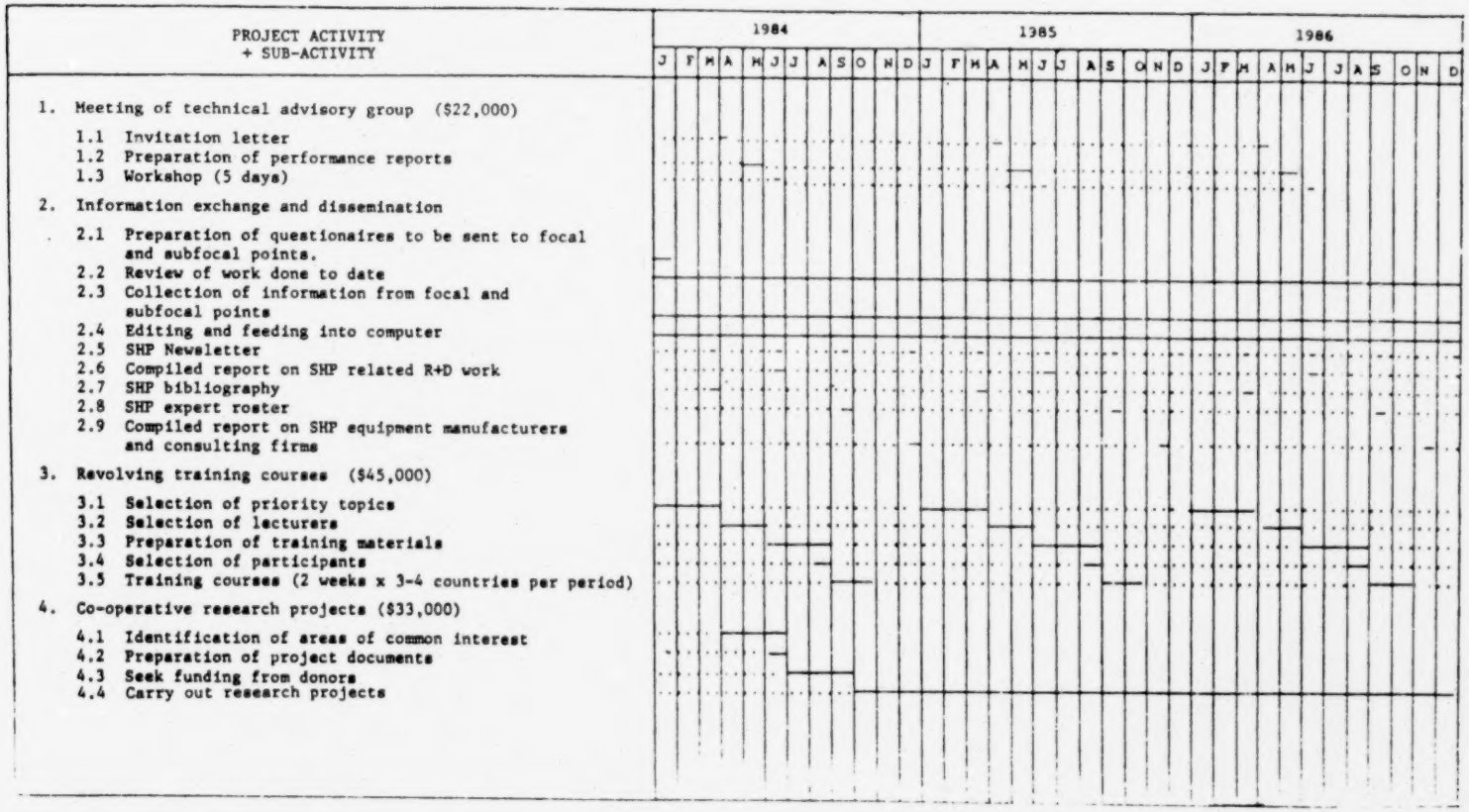
PROJECT ACTIVITY + SUB-ACTIVITY
1984
1985
1986
J F M A M J J A S O N D
1. Meeting of technical advisory group ($22,000)
1.1 Invitation letter
1.2 Preparation of performance reports
1.3 Workshop (5 days)
2. Information exchange and dissemination
2.1 Preparation of questionaires to be sent to focal and subfocal points.
2.2 Review of work done to date
2.3 Collection of information from focal and subfocal points
2.4 Editing and feeding into computer
2.5 SHP Newsletter
2.6 Compiled report on SHP related R+D work
2.7 SHP bibliography
2.8 SHP expert roster
2.9 Compiled report on SHP equipment manufacturers and consulting firms
3. Revolving training courses ($45,000)
3.1 Selection of priority topics
3.2 Selection of lecturers
3.3 Preparation of training materials
3.4 Selection of participants
3.5 Training courses (2 weeks x 3-4 countries per period)
4. Co-operative research projects ($33,000)
4.1 Identification of areas of common interest
4.2 Preparation of project documents
4.3 Seek funding from donors
4.4 Carry out research projects

Table 1b Revised schedule of RN-SHP activities under REDP Phase II

1984 - 1986 (Total funding 100,000 USD)

	1984 J F M A M J J A S O N D	1985 J F M A M J J A S O N D	1986 J F M A M J J A S O N D
1. Meeting of technical advisory group			
1.1 Invitation letter	-		-
1.2 Preparation of performance reports	($22,000) ---	No meeting	Funds to be secured -----
1.3 Workshop (3-5 days)	11-13 Dec. -	if funds insufficient	-
2. Information exchange and dissemination			
2.1 Preparation of questionaires to be sent to focal and sub-focal points	-	-	
2.2 Review of work done to date	----------	----------	----------
2.3 Collection of information from focal and sub-focal points	----------	----------	----------

	1984 J F M A M J J A S O N D	1985 J F M A M J J A S O N D	1986 J F M A M J J A S O N D
2.4 Editing and feeding into computer	----------	----------	----------
2.5 SHP Newsletter (UNDP funded)	Publicn .....*.....*..	...*.....*.....*.....*	....*.....*.....*.....*
2.6 Compilation and publication of SHP rosters (in conjunction with UNDP funding)	.....	.....*..	.....*..
3. Revolving training courses	Preparatory work Consultation Mission ($15,000) *		
3.1 Selection of priority topics		----	----
3.2 Selection of lecturers		--	--
3.3 Preparation of training materials		-------	------
3.4 Selection of participants		-	-

	1984 J F M A M J J A S O N D	1985 J F M A M J J A S O N D	1986 J F M A M J J A S O N D
3.5 Training courses (e.g. 2 weeks x 3-4 countries per period)		$15,000 ---	$15,000 ---
4. Co-operative research projects			
4.1 Electronic load controller-local assembly and application	$12,500 (1984, REDP) ---------	$15,000 (1985, UNDP) ----------	---------
4.2 Identification of other areas of common interest	-	--	
4.3 Preparation of project documents		$12,500 -	
4.4 Seek funding from donors		-------	$8,000
4.5 Carry out research projects		---------	----------

Table 2 Work Programme for 1985-1986 with Cost Break-down (UNDP Input)

	US $ 1985	US $ 1986
A. Quarterly RN-SHP Newsletter by the Secretariat of RN-SHP (Issue Nos. 3-10 will be published); Printing costs.	5,000	5,000
B. Third Training Workshop on "Simple Low-cost Feasibility Study of Small Hydro Power" in 1985; most of the developing countries of ESCAP region are using a modified version of conventional hydro power feasibility study methods. Fourth Training Workshop on "Design of Small Hydro Power Stations particularly emphasizing simplified Low-cost Civil Construction Methods" in 1986	40,000	Funds to be secured
C. UNIDO advisory mission to RN-SHP headquarters in order to assist in the RN-SHP Secretariat activities	5,000	5,000
D. RN-SHP Secretariat Support activities	15,000	15,000
E. Up-dating and expansion of directories on R+D activities related to SHP; SHP bibliography; SHP experts roster; Engineering Consulting Companies related to SHP; SHP equipment manufacturers; SHP Stations in operation; SHP Training Activities in the Region; etc.	10,000	10,000
F. Short-term consultancy services, upon request, on R+D; local manufac' ring of SHP equipment; feasibility studies; SHP construction; equipment selection; etc.	5,000	5,000

G.	Video films for SHP training with scenarios on: -SHP activities in the Asia and Pacific region; -Hydraulic structures for low-head diversion-type SHP stations; -Local manufacturing of SHP equipment; -Dam and mixed-type plant for SHP; -Lay out of Small Hydro Power Houses,etc. There is an urgent need for appropriate audio/visual material to supplement the written texts in order to improve the quality of training workshops more effectively. It is aimed at policy-makers on one hand and technicians and engineers on the other.	50,000	Additional funds to be secured
H.	Co-operative research and development project on "Application and local assembly-ing of electronic load controllers at SHP stations in the ESCAP region" in 1985 (as continuation of 1984 activities).	15,000	
	Co-operative research and development project on "Selection of locally available materials and its utilization in an inexpensive way for the construction of SHP stations" in 1986.		15,000
I.	"High-level seminar on national SHP policies and regional co-operation" in conjunction with the inauguration ceremony of new RN-SHP office premises, in the fourth quarter of 1986.		Funds to be secured
		US $145,000	US $55,000

Total: US $200,000

Table 3 Forecast of RN-SHP activities 1985-1986

	Activity	1985 J F M A M J J A S O N D	1986 J F M A M J J A S O N D
A.	RN-SHP Newsletter by the Secretariat of RN-SHP	* * * *	* * * *
B1.	Third Training Workshop on "Simple Low-cost Feasibility Study of Small Hydro Power";	*	
B2.	Fourth Training Workshop on "Design of Small Hydro Power Stations particularly emphasizing Simplified Low-cost Civil Construction Methods" in 1986.		* Funds to be secured
C.	UNIDO advisory mission to RN-SHP headquarters in order to assist in the RN-SHP Secretariat activities	No fixed date	No fixed date
D.	RN-SHP Secretariat Support activities	----------	----------
E.	Up-dating and expansion of directories on R+D activities related to SHP; SHP bibliography; SHP experts; Consulting Companies; equipment manufacturers; SHP Stations, Training Activities.	Publication ----------*	Publication ----------*
F.	Short-term consultancy services, upon request, on R+D; local manufacturing of SHP equipment; feasibility studies; SHP construction; equipment selection; etc.		
G.	Video films for SHP training	----- Survey of available films	

Activity	1985 J F M A M J J A S O N D	1986 J F M A M J J A S O N D
	----- Production of sample film by HRC	
	- Advisory Group Meeting	
	Scenario, shooting, editing of 3 video films	Additional funds to be secured
H1. Co-operative research and development project on electronic load controllers in 1985 (as continuation of 1984 activities).	----------	
H2. Co-operation research and development project on "Selection of locally available materials and its utilization of SHP stations" in 1986		----------
I. "High-level seminar on national SHP policies and regional co-operation" in conjunction with the inauguration ceremony of new PN-SHP office premises, in the fourth quarter of 1986		Funds to be secured -
J. Telemetry and automation of Panxi SHP cascade stations	----------	----------